

# POISONOUS PRODUCTS, DECEPTIVE LABELS

*Most chemicals found in everyday household products are inadequately labelled as to their chemistry and their toxic side-effects on health and the environment.*

*Part 1 of 2*

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## IMMENSE INCREASE IN ILLNESS DUE TO TOXIC CHEMICALS

**W**e live surrounded by caustic waste, and the situation is getting worse. The "Better Living Through Chemistry" slogan was created to acclimatise us to synthetic, poisonous chemicals, but it is debatable whether our living is indeed better. According to the Chemical Abstracts Service (the computerised registry of the American Chemical Society), more than *four million* different chemicals are in our environment, and the number of chemicals increases by *a quarter of a million each year*. Since the 1980s, over *400 billion pounds of toxins per year* have been produced.

Most of the chemicals surrounding us are toxic. We hear the word "toxic" so often that it has lost its meaning. But "toxic" means "poisonous". Anything labelled "Poison" is legally defined as "capable of destroying life".<sup>1</sup> Many different types of poisons surround us daily: pesticides, preservatives, plastics, dyes, solvents and more. Even well-informed consumers don't realise how dangerous chemicals actually are. For instance, we may know enough to avoid pesticides, but how many people are aware that pesticides are in common household soaps? And that products from the health food store labelled "environmentally safe" and "biodegradable" can be lethal to humans? This is the story of how chemicals affect us, how they are mislabelled, what we can do to avoid them, and what we can use instead.

It is only recently that chemicals have occupied such a significant role in our lives. During World War II, thousands of chemicals were synthesised and manufactured for use in combat, many of them intended as ingredients of nerve gas. After the war ended, industry—stuck with a surplus of waste (euphemistically referred to as "product")—had to find peacetime uses for these chemicals. By creating a mass market use for them, industry was able to eliminate the expense and danger of discarding the toxic waste, and at the same time make a profit. Cleaning products, laundry and dishwashing detergents, personal hygiene products, disinfectants, foods and medicines, things we use every day were all "improved" by the addition of poisonous chemicals. Neurotoxins became pesticides, solvents were now food flavouring, and so on.

Our government and industry are unrelenting in their efforts to convince the public that chemicals are both desirable and necessary. One example is the insidious way in which fluoride was introduced into the marketplace—which unfortunately is typical for many chemicals. Touted as a great preventer of dental cavities, fluoride was created as an ingredient essential for manufacturing atomic bombs during World War II. It is also a byproduct of the aluminium and pesticide industries. Farms near the fluoride manufacturing plants suffered from blighted, burned crops and the animals became sick. Dangerously high concentrations of fluoride were measured in the bloodstreams of the workers, who were also plagued by vomiting and diarrhoea when they ate the produce they picked from the farms. Secret tests carried out by the United States Government showed that fluoride was extremely harmful. Among other damage, it caused birth defects and injury to the central nervous system, and it *mottled* and *destroyed* teeth rather than preserved them.

Reporters Joel Griffiths and Chris Bryson write: "Much of the original proof that fluoride is safe for humans in low doses was generated by A-bomb program scientists who had been secretly ordered [by the US Government] to provide 'evidence useful in litigation' against defence contractors for fluoride injury to citizens."<sup>2</sup>

In *Fluoride, the Aging Factor*,<sup>3</sup> biochemist John Yiamouyiannis describes the devastating effects of fluoride on people all over the world. In cities all across the United States,

an increase in fluoride in the drinking water corresponded with increases in deaths from liver cancer, bone cancer and oral squamous cell tumours (another form of cancer). Other symptoms included gastrointestinal disturbances, convulsions, aching bones, bloody vomit and skin rashes.

Yiamouyiannis documents in great detail the research conducted by scientists from the United States, Japan, Venezuela, the former Soviet Union and South Africa (the list is extensive), showing the genetic defects and illnesses from fluoride damage and the efforts of industry and government officials to hide the damning research and keep fluoride on the market. The extensive documentation on this issue has only been recently declassified by the government—and even so, some of the records have portions missing. This is not a conspiracy buff's fantasy; the mainstream press is finally reporting what insiders in the toothpaste industry have known for a long time: that fluoride is a well-established poison.

Regina Miskewitz, director of research and development for oral and personal care at Arm & Hammer products, was recently quoted as saying: "When I receive the fluoride here, it has a skull-and-[cross]bones on it."<sup>4</sup>

By law, all toothpaste containing fluoride must warn the consumer to "seek medical help or contact a poison control centre immediately" if more toothpaste than is "normally" used for brushing is accidentally swallowed. But young children, who tend to like saccharine-flavoured concoctions and may not spit out something that is easy enough to swallow, are particularly vulnerable to being poisoned. John Yiamouyiannis's book covers many instances of children suffering intense symptoms, or even death, after applications of fluoride in the dentist's chair. Yet too few people have heard of this book.

Information like the story of fluoride—which should be the headline of the six o'clock news—is not easy to obtain. What is commonplace and heavily advertised becomes popular fiction, which people eventually accept as the truth.

As long as industry has the legal and financial support of our government to swindle and lie to the public, people will believe that these dangerous chemicals are harmless. They will also continue to suffer poor health from a highly chemicalised environment.

Since 1950, most of the new chemicals that have been introduced into the marketplace have never been tested for long-term or even short-term safety. Many of these caustic materials are byproducts of the petrochemical industry and are known neurotoxins, destroying the brain and nerve cells.

Some chemicals migrate to organs and glands, while others remain trapped in the fatty tissue. The body cannot excrete these toxins because it was never designed to metabolise them. Unable to perform routine life processes smoothly, the body is forced to cannibalise its own nutrients so that it can remain in some sort of balance. Muscle tissue might be broken down for the vital amino acids of which it is comprised, in order to regulate liver function. Or calcium is leached from the bones to make it available for critical metabolic processes. These crisis activities further debilitate the system and increase the person's vulnerability to disease. As more poisons are absorbed, severe sensitivities and chronic, often debilitating diseases develop. The process is so gradual, most

people never realise what made them sick.

The past few decades have seen the emergence of "new" diseases like multiple chemical sensitivity (MCS), appropriately enough also known as environmental illness (EI), which affects 15 per cent of the population. Whether diagnosed with MCS or not, many people react negatively to environmental pollutants and chemicals—perfume, cigarette smoke, car exhaust, fabric softener, cleaning fluids and powders, gasoline.

The list of irritants is endless, as are the symptoms they create: headaches, nausea, fatigue, shortness of breath, coughing, rashes, joint pain, swelling, blurry vision, even emotional instability. In addition, there are as many allergic reactions as there are people to experience them. The term "allergic reactions" (which has become a catch-all phrase to describe negative responses to chemicals), like the word "toxin", has lost much of its meaning. But the seriousness of the reaction becomes clear when you understand what an allergy actually is: the body's response (usually through the production of histamines) to expel foreign proteins (allergens) that are so large that they lodge in the joints and tissues, irritating the cells, disrupting metabolic functioning and creating even more waste materials. That is why allergic responses are so varied and have such far-reaching effects.

As if this weren't enough, chemicals are also directly responsible for increases in birth defects, attention deficit disorder (ADD) and other learning disabilities, emphysema, asthma, digestive disturbances, skin conditions, lack of motor control, cancers and multiple sclerosis (MS). This is just the tip of the iceberg. *All these conditions, and more, have been linked to toxic chemicals.*

The multitude of symptoms that one can develop from toxic chemicals is not surprising if you realise that chemicals have been on Earth only during our

most recent history. Two authors note that if our whole stay on Earth "stretches from Los Angeles to New York City, the chemical revolution occupies only the last 211 feet [64.3 metres]". Or, if humans have been on Earth for the equivalent of one year, we have been immersed in this "drastically altered environment during only the last 7.5 minutes".<sup>5</sup>

### The Disappearing Skull and Crossbones

Forty years ago, we didn't have to guess what was or wasn't a poison. Even very young children knew to avoid containers bearing the explicitly clear, scary-looking skull and crossbones. But this dramatic and effective symbol was replaced by warning labels that are required on all poisons by the United States Government Environmental Protection Agency, Office of Pesticides and Toxic Substances. The text on the labels may be informative, but it lacks the dramatic graphic quality of its predecessor, the skull and crossbones—and is certainly less intelligible to young children who can't read. Today, many poisonous cleaners are packaged in flashy containers designed to appeal to consumers—but they also arouse the curiosity of unsupervised children who can easily mistake them for colourful playthings.

We have the chemical manufacturers to thank for the abolition of the skull and crossbones. They lobbied against the symbol because it hurt their sales. Sadly, the only awareness that most people have today of the skull and crossbones is as a symbol on the flag of a pirate ship.

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## What the Small Print Really Means

Many people whose immune systems are still strong, don't understand the danger of chemicals and accuse sensitive people of exaggerating (if not altogether fabricating) their symptoms. However, the fact that there are warning labels on common household detergents indicates the gravity of the situation: "Keep out of the reach of children"; "Avoid contact with eyes"; "Do not inhale"; "Use near open window"; "Harmful if swallowed"; "If swallowed, flush with water"; "If swallowed, do not induce vomiting. See your doctor or call your local poison control centre immediately."

Sometimes a label might read "For external use only"—which sounds relatively innocuous, but think about it. Why can't we ingest it, unless it's because the substance is poisonous? Clinical ecologist Alfred Zamm suggests a good rule to follow: "If you can't eat it, don't breathe it."<sup>6</sup> We would not need any of these warnings if the chemicals were harmless. Yet even so, as we shall see, these labels do not reliably indicate the extent of the danger that we are actually in.

There are many ways in which we ingest lethal chemicals. The skin (which is the largest organ in the body) is highly permeable. That we can smell something indicates the physical presence of its molecules in the air, which are then transmitted to the bloodstream via the respiratory tract. And in case you assume that "Do not swallow" pertains to your child but not you (after all, why would an adult drink a bottle of dish detergent?), understand that legal meanings of words are often different from what they mean in everyday usage. *Legally, "swallowed" means "inhaled or absorbed through the skin".*

- Cleaning with vaporous cleansers in an enclosed area such as oven, bathtub or shower, even with ventilation, means *breathing the fumes*.
- Holding a cleaning rag, sponge or mop soaked with a cleaner or polish means *absorbing the chemicals through the skin*.
- Eating from dishes washed in detergents whose residue then migrates to your food, means *eating the chemicals*.
- Washing with laundry detergents that remain in the fibres of your clothing is, again, *absorbing the chemicals through the skin*.

There are two categories of products that are legally considered dangerous: (1) hazardous products, and (2) pesticides. Hazardous products—which may be toxic, corrosive, irritant, flammable or radioactive—are regulated in the United States by the Federal Hazardous Substances Act. Pesticides, which kill pests, are regulated by the Federal Insecticide, Fungicide and Rodenticide Act.

What is legally considered a pesticide may surprise you. Pesticides consist of (logically enough) weedkillers, insect

repellents, flea and cockroach sprays, rat poisons, and some swimming-pool (anti-fungus, anti-algae) chemicals. *But pesticides also include other items that are identified as germicidal, anti-bacterial, anti-microbial or disinfectant. The majority of kitchen, laundry and bath disinfectants and sanitisers, and products that kill mould and mildew, are legally classified as "pesticides" because they contain pesticides.* These and other pesticide-laden products are so harmful, they are required by law to say "Keep out of reach of children" on the front label. It is alarming to realise that the same chemicals designed to kill rodents or fleas may be in laundry detergents, hand soaps and dish soaps classified as "anti-bacterial". When we use these products, the pesticides seep in through our skin.

In legal parlance, an "adult" is a 180-pound male, so what adversely affects an "adult" will have an even worse effect on a woman, and especially a child. A large man with a strong constitution will be less vulnerable than a petite woman whose exposure to chemicals has already debilitated her immune function (perhaps to the point where she now suffers from fully fledged environmental illness).

The following charts (below and overleaf), assembled from government and industry sources, reveal the truth behind labels on

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poisonous chemicals. Don't forget that toxic = poison = "fatal". This makes the phrases "highly toxic", "moderately toxic" and "slightly toxic" meaningless. It is a matter of *how much* of the poisons will kill you and *in what manner*, rather than *if* they will. Designating a mixture "slightly toxic" is like saying that someone is "a little pregnant". However, I have included these phrases because some research laboratories and offices use them as standards.

Ultimately, everyone dies—perhaps even at a fairly old age, even if

pesticide-ridden detergents have been kept at the kitchen sink. But we must ask: Would people be suffering from so many chronic, debilitating illnesses—in other words, *prematurely dying from a stressed and slowly malfunctioning immune system*—if we lived in a poison-free environment?

What we consider "healthy" may only mean that: (1) the person's symptoms have not manifested yet; (2) the person might be manifesting slight symptoms (like a chronic sinus drip or feelings of being a little "under the weather") that are not yet traceable to a "real" illness or anything to worry about; or (3) the person's obvious distress has not yet been associated with the deadly chemicals in our environment. It is not possible for an isolated part of the body to be sick while other parts remain in so-called perfect health. And different people manifest symptoms differently, sometimes in apparently unrelated areas of the body.

<b><u>If the label says:</u></b>	<b><u>It is considered:</u></b>	<b><u>With the following result:</u></b>
POISON	"Highly" Toxic	A few drops to one teaspoon will kill an adult.
DANGER	"Highly" Toxic	A few drops to one teaspoon will kill an adult.
WARNING	"Moderately" Toxic	One teaspoon to one ounce will kill an adult.
CAUTION	"Slightly" Toxic	Over one ounce will kill an adult.

If a product is labelled:	Ingestion by mouth, nose or skin is:	And effects on the body are:
<b>POISON</b> or <b>DANGER</b>	<b>Fatal if swallowed.</b> Do not breathe vapour in either spray mist or dust form. Do not get in eyes, on skin or clothes. Wear goggles, face shield and rubber gloves when handling. (First aid procedure required on label.)	<b>Corrosive.</b> Causes eye and skin damage, and/or skin irritation. In case of contact with skin or eyes, immediately flush with plenty of water.
<b>WARNING</b>	<b>Fatal if swallowed</b> (only it will require a greater amount, and a longer period of time, than the above). Do not breathe vapour in either spray mist or dust form. Do not get in eyes, on skin or clothes. Wear goggles and rubber gloves. (First-aid procedure required on label.)	<b>Detrimental.</b> Causes eye and skin irritation. In case of contact with skin or eyes, immediately flush with plenty of water.
<b>CAUTION</b>	<b>Fatal if swallowed</b> (only it will require an even greater amount, as well as a longer period of time, than the above). Do not get in eyes, on skin or clothes. Wear goggles and rubber gloves. (First aid procedure required on label.)	<b>Detrimental.</b> Causes eye and skin irritation. In case of contact with skin or eyes, immediately flush with plenty of water.

### What about Products from the Health Food Store?

In case some people assume (as I once did) that detergents from a health food store are healthier or safer, be assured that this is not the case. The following words and phrases might mean something to us in everyday usage, but they have *no legal meaning*: "natural"; "ecologically safe"; "environmentally friendly". "Biodegradable" is a legal term, but it simply means that the chemicals in the product will return to the earth in 99 years.

Chemicals may be safe for the environment, which can absorb, assimilate, and transform them. But those same chemicals are still unsafe for humans, who cannot adapt to them or convert them. *In other words, we can still be poisoned by "natural" and "organic" cleansers that are "ecologically safe" and "environmentally friendly". These words are advertising ploys.*

### Deception in our Consumer-Unfriendly Labelling Laws

Despite what most Americans have been led to believe, an alarming majority of chemicals and additives are either inadequately tested or else not tested at all. Our labelling laws are full of loopholes, and the even minimal protection to which consumers are legally entitled is seldom enforced. In addition to the issues already discussed, there are other serious problems with labelling laws, many of which often contradict each other.

1. The various government and non-government agencies in the United States responsible for regulating chemicals have neglected protecting the consumer in favour of industrial profits. For instance:

- Manufacturers are required by the federal government to disclose whether or not their product is *acutely* poisonous (as opposed to poisonous over a longer period of time), irritating, caustic or flammable; but they are not required to reveal if their products are carcinogenic, contain neurotoxins or harm the reproductive organs.

- The Environmental Protection Agency (EPA), instead of properly labelling and phasing out carcinogenic and neurotoxic chemicals, allows "acceptable" levels of pesticides on foods, justifying it as a "negligible risk". However, as David Steinman and Samuel

Epstein, authors of *The Safe Shopper's Bible*, write: "...based on the EPA's own estimates, residues of sixty carcinogenic [allowable] pesticides on thirty foods that may be eaten in just one day would result in about sixty-four thousand excess cancers a year, more than 10 per cent of all current cancer deaths."<sup>7</sup> These estimates do not include cancer from (permissibly) undisclosed pesticides, allowable dyes, "acceptable" levels of hormones in meats, (again, allowable) radiation in food, water and air, and the interactions of any of those chemicals.

The EPA, in implementing its current policy, is breaking the Delaney Amendment law. Appended by Congressman James Delaney to a 1958 law requested by the Food and Drug Administration (FDA), the amendment stated that "no additive may be permitted in any amount if the tests show that it produces cancer when fed to man [*sic*] or animals or by other appropriate tests".<sup>8</sup> Food and chemical manufacturers are required to test additives for cancer *before* putting products on the market and to submit the results to the FDA—yet the FDA currently claims that the law is unenforceable. The food industry, chemical manufacturers, the Nutrition Council of the American Medical Association and even some FDA commissioners have tried to get the Delaney Amendment repealed ever since it was written into law.

- The Consumer Product Safety Commission (CPSC)—reported by Steinman and Epstein as an "independent" regulatory agency, created in 1972, with jurisdiction of over more than 15,000 products—claims that because consumer exposure to carcinogens is minimal, health hazards are likewise minimal. However, as I explained earlier, saying that a poison is only a *little* toxic is like saying that a woman is only a *little* pregnant. As Steinman and Epstein corroborate: "The overwhelming consensus in the independent scientific community is that *no safe exposure threshold to a carcinogen exists* [emphasis added]."<sup>9</sup>

- The FDA, probably the most well-known regulatory agency, commands more prestige than it does consumer protection. Although many ingredients approved by the FDA have been shown to cause major health problems for a significant number of consumers, these ingredients are nonetheless permitted in

detergents, cosmetics, medications and food via some complicated and indefensible legal sanctions. To give only one example, the National Institute of Occupational Safety and Health found that 884 chemicals used in cosmetics are reported as toxic. However, a document from the General Accounting Office "notes that the FDA has committed no resources for assessing the safety problems of those chemicals that have been found to cause genetic damage, biological mutations, and cancer".<sup>10</sup>

The inclusion of a particular chemical or additive on the United States Government's GRAS (Generally Recognized As Safe) list does not guarantee that the chemical is safe or has even been tested. Incredibly, ingredients can appear on this list if the FDA *thinks* they are safe or *assumes* they are safe. Even if the FDA demonstrated active interest in ensuring the safety of new chemicals, the number of items submitted for approval is so staggeringly high that the staff cannot handle all the applications of manufacturers who want their chemicals approved. Ruth Winter, author of *A Consumer's Dictionary of Food Additives*, cites many cases where the FDA's toxicology reports are either not current or non-existent. Significantly, many chemicals accepted by the FDA for use in the United States are banned in Europe.

• There is no system of checks and balances to ensure the impartiality of the FDA staff responsible for approving or opposing a substance. The work history and affiliations of a number of FDA employees is questionable. Only one example is Margaret Miller, who worked on bovine growth hormone for Monsanto (the manufacturer of drugs, pesticides and artificial sweeteners) before getting a job with the FDA—where she then was put in charge of approving her own research. Monsanto lawyer Michael Taylor was also hired by the FDA. Says Betty Martini, founder of Mission Possible: "The FDA is Monsanto's Washington branch office."<sup>11</sup>

2. Much of the testing for safety, on which the FDA bases its acceptance or rejection of a product, is conducted by the manufacturers.

3. Labelling rules are different for foods, cosmetics, household items and medicines. Depending on the regulation and the product's classification, not all ingredients have to be listed on a label. The cosmetic and personal care product industry is required to disclose ingredients, but this information has limited value, since testing for safety is voluntary—and the industry itself has the power to define "safety" and decide how its tests will be conducted. Often, the products that contain the least amount of information about their ingredients are the most noxious. The worst offenders are fabric softeners. Apparently, from what the labels fail to disclose, manufacturers are permitted to regard "fabric softener" as a generic chemical. Detergents rank close behind, along with spray starch and furniture polish.

4. Some labels are so unspecific that they are meaningless. For example, the vague term "fragrance" is allowed on a label. However, a fragrance can consist of 200 separate ingredients (including solvents and plastics), any one of which can cause negative reactions.

5. Usually, the effects of a combination of chemicals is exponentially more lethal than the effects of uncombined chemicals. Unfortunately, most products are comprised of many chemicals,

rather than *just* one or two. Our labelling and safety laws make no provisions to protect consumers from the effects of two or more chemicals in the same product.

6. Listing the source of an ingredient as "natural", "organic", "food grade" or from an edible source (such as coconut or orange) does not guarantee that the ingredient will remain pure or even safe by the time it has been fully processed. The company is not required to state what kinds of processing the ingredient has gone through in order to yield the final component—such as whether or not solvents were used to extract the material and, if so, what steps (if any) were then taken to remove the solvents (and what) from the final mix. Take the commonplace detergent, sodium laurel sulphate, which causes eye irritation, allergic reactions, hair damage and drying of the skin. Some manufacturers, especially of products geared towards the health food market, try to circumvent consumer concern by listing this highly processed, synthetic detergent as "a mild, naturally foaming agent from coconuts".

7. Many products emphasise the positive aspects of one ingredient in order to detract from the product's overall defects. For

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instance, the inclusion of safe and beneficial, organically grown herbs does not guarantee that the rest of the ingredients in the product are safe. Take Clairol Herbal Essence Shampoo, whose label states, "Herbs grown under certified organic conditions—no petrochemicals or pesticides". This same shampoo contains solvents (made from petrochemicals) and detergents (which contain pesticides), as well as synthetic fragrances, preservatives and dyes.

Other products claim merit according to what is *omitted* from the formula, but the strategy is the same. The

label from NutriBiotic Bubble Bath reads, "Contains no sodium lauryl sulphate". The product does, however, contain sodium laureth sulphate—which, despite its limited reputation as milder than sodium lauryl sulphate, contains a toxic ether and is likely to be contaminated with carcinogenic compounds as well.

8. Sometimes claims are made for products that, while not false *per se*, are deceptive because they eclipse other, more important information. For instance, a number of skin care product labels read, "This product is packaged in a biodegradable container". Still others make a point of proclaiming, "No animal testing" or "Cruelty-free". While this is laudable, for the last 15 or 20 years there has not been any *need* for animal testing because most of the gruesome tests on commonly used ingredients have already been conducted. Since for cosmetics there is no legal requirement for testing anyway, a company's statement of "No animal testing" is likely a shrewd public relations tactic. Similarly, many cleansers report that the product is "biodegradable" or "will not harm septic tanks"—again, laudable, but this obscures the fact that the product is harmful to human beings.

9. Many ingredients can sound relatively innocuous until you do a little research. Take "non-ionic and anionic surfactants" which are in New Formula Mr Clean and Ivory Snow. Surfactants are none other than poisonous detergents. A more insidiously disguised ingredient is "quality control agents", contained in Comet Homecare Bathroom Cleaner among other products. The bathroom cleaner's label reads, "Cleaning agents, quality control agents, perfume, and water".

When I called a representative at Proctor & Gamble (the manufacturer) to find out what exactly these "quality control agents" are, the woman told me that to protect its research and profits the company had classified that information as proprietary. However, she indicated that she was allowed to disclose ingredients if I asked her directly, "Does this product contain such-and-such?" Companies are obliged to comply with this procedure in case people have allergies. I was saved the trouble of reciting specific poisons from my list, one by one, when she volunteered that the "quality control agents" prevent freezing and ensure homogenisation and consistency of the product—a function typical of a solvent. Thus I was able immediately to focus on my list of solvents, and by reading them individually quickly determined that Comet Homecare Bathroom Cleaner contains a powerful alcohol solvent, dipropylene glycol butyl ether.

Incidentally, a recorded voice told me before my phone conversation that my call would be taped. I was not given a choice about this. In exchange for a consultation with a company member (which should be my legal right, since the company is dispensing poisons), I was forced to endure this invasion of my privacy.

10. Those labels that do list ingredients are inconsistent. For instance, sometimes ingredients are listed according to their chemical name (such as disodium EDTA); other times, by their function (e.g., a preservative). Also, confusion can arise because some toxins are used for more than one function. For example, butyl stearate is both an anti-foaming agent and a synthetic flavouring. Pyridinem, which was once used as a medication for asthma, is now utilised both as a solvent and as an additive for chocolate flavourings in candy and other foods.

11. Some of the ingredients listed are known by more than one name, and may not be recognisable from one product to another. One example is methylcellulose, which is also known as cellulose and methyl ether. Extremely poisonous, it is extracted by treating wood pulp or chemical cotton with alcohol. It is related to carboxymethylcellulose. Unless you have a solid background in chemistry, it is difficult to decipher what exactly is in the products, even with the help of several good reference guides. Moreover, the constant creation of new chemicals renders even good chemical dictionaries obsolete. (Note that I am referring only to the chemicals that are listed; many are not.)

12. Some labels disclose the ingredients not in the ingredients section, but on other parts of the label—which means that sometimes the consumer must read the entire label to find out the contents of the product. For instance, one discovers that Comet Homecare Bathroom Cleaner contains a dangerous alcohol solvent only when reading the First Aid portion: "In case of eye contact, flush thoroughly with water. If irritation persists, call a physician. If swallowed, drink a glass of water and call a physician (product contains an alcohol, ethoxylate)." (We're now back to the discussion that the same poison can have many names.)

13. Sometimes a product does not have its ingredients listed because it is improperly classified. For instance, because denture adhesive creams are not legally considered foods or cosmetics, the manufacturers are not required to list the ingredients on the

labels—despite the fact that it is impossible not to inhale or swallow some of the product, since it is used in the mouth!

14. Some products containing a wide range of additives—detergents, dyes, preservatives, fragrances, pesticides and solvents—are specifically intended for children. A child's immune function is not developed enough to handle even somewhat adequately the onslaught of so many poisons. Yet Johnson's baby products are touted on the labels as "hypo-allergenic" and "tear-free". (See item 15 for information on what "hypoallergenic" really means.)

15. Labels often contain confusing legal terms that obscure the truth instead of inform. For example, "hypoallergenic" does not mean "not allergy-producing". It means "less likely to cause an allergic reaction, but it still might". Similarly, the label on Earth Rite Dishwashing Liquid states, "Non-Toxic to Children". But the legal definition of "non-toxic" means "allowably toxic"—which is almost the opposite of its everyday, commonsense usage. The truth is revealed elsewhere on the label, which reads: "Caution: Please keep all cleaning products out of the reach of children. If swallowed, drink a glass of water and call a physician." (The reason for the "Caution" is that this product contains harmful alcohol and detergent.)

16. Manufacturers often combine legal meanings with common meanings on the same label. For example, a label might read "Caution", which has a specific legal meaning. But that same label can say "Natural" (a ploy to detract from the "Caution"), which is not legally defined and therefore has no meaning other than what the consumer thinks it means. Thus even a careful shopper has difficulty deciphering what exactly s/he is buying.

17. Companies have ways of bypassing "allowable limits" of a particular poison. For example, the FDA's limit for highly carcinogenic aflatoxins in nuts is 15 parts per million. There is nothing to

prevent a company from adding uncontaminated nuts to a batch that has an unacceptably high contamination level—thus creating a new batch of nuts that can now be sold because the total average level of contamination has been made "allowable".

18. In an ironic twist, some of the labelling laws are potentially damaging to the consumer because they require *too much* of the *wrong kind* of information on the label. Some items now require the chemical name of an ingredient rather than the common name with which the consumer is more familiar. An example of this is the magnesium aluminum silicate listed on Weleda's Iris Hand & Body Lotion. Although the term is followed by the explanatory phrase "(a purified clay)", I initially had doubts, because not all clay is composed of materials that I would want to put on my skin—and by what process is the substance "purified"? A company representative advised me that magnesium aluminum silicate is another word for "bentonite", a clean, edible clay that is widely and effectively used for colon cleansing. Had I known this, I would not have been concerned. The Cosmetic, Toiletries and Fragrance Association (CTFA) is responsible for setting the standards for this unnecessarily detailed labelling, and the FDA follows the guidelines set by the CTFA when it monitors cosmetics.

19. There is a lot of information that the FDA outright *refuses to permit* on packaging, even though the information would greatly

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assist consumers who want to know what they are ingesting.

Take recombinant bovine growth hormone (rBGH) and bovine somatotropin (BST), injected into commercially raised dairy cows in the belief that this forces them to produce more milk. The United States is the only country in the world that uses BGH. Dairy companies were forbidden to state that they did not use BGH or BST in their products until Ben & Jerry's Ice Cream and Stonyfield Farms instituted a lawsuit in 1995. In 1998, the restrictive labelling law was finally overturned. Although the FDA and the hormone manufacturers (Monsanto, American Cyanamid, Upjohn, Eli Lilly and Dow) insist that the hormones are safe, the FDA admits that the synthetic chemicals differ in molecular structure from the normal hormone by as much as three per cent. The artificial hormones are linked to hormone changes and allergies in human beings. Cows given the chemicals suffer from infertility, loss of fat, heat intolerance, failure to lactate, arthritis, kidney and heart abnormalities, gastric ulcers and increased susceptibility to infec-

tion. In response to these infections, cattle farmers give the cows huge doses of antibiotics, which migrate into the milk and then the humans who drink it. The composition of hormone-laced milk is altered: protein decreases, and fat increases by up to 27 per cent. Even so, a company that refuses to use the artificial hormones must include a disclaimer on its labels, stating that there is no proof that these chemicals do any harm and that the milk from injected cows is identical to that from normal cattle.

Other items besides cosmetics that the FDA will *not* permit to be plainly labelled are *genetically engineered* foods and *irradiated* foods. We must ask for whose benefit these labelling laws exist.

**20.** Sometimes, ingredients that by themselves are poisonous become transformed during the manufacturing process. One example is lye (typically derived from wood ash). Drain openers contain pure lye because it is caustic and dissolves whatever it touches. But lye is also used to make soap. When mixed with water and fat (animal or vegetable)—the main ingredients of soap—the lye catalyses a chemical process that produces a final product with different characteristics from the original ingredi-

ents. Castile soap and simple homemade soaps, generally regarded as mild, are also made this way. However, some skin care experts believe that even though the lye becomes transformed in the soap-making process, it produces a less than completely safe end-product. For this reason, companies such as Aubrey Organics prefer to use salt as a catalyst instead of lye. Soaps made with sea salt may indeed be healthier than those made with lye; and soaps made with lye are preferable to soaps containing synthetic detergents made with artificial coconut oil extracts and/or the toxin diethanolamine (which remains in the detergent).

**21.** The manufacturer may claim that an oil is "additive-free", but by law this can refer to the final mix only. Additives such as propylene glycol, synthetic linolol acetate and SD-40 are commonly used to extract oils quickly, which saves time and increases product volume (and profits for the manufacturer). Sometimes companies in the natural health market that genuinely care about their ingredients still use debatable substances in the manufacturing

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process because they believe that the harmful chemicals can be thoroughly removed before the product is packaged. One example is grain alcohol (which is natural, but drying to the skin), employed in a "cold extraction" process to distill the essential oils from herbs. The companies later eliminate the alcohol from the mixture by gently warming the oil or lotion before the product is bottled, and the resulting compound is referred to as "natural". Nevertheless, chemicals can remain in the steam used to extract the oils and be impossible to remove later. The "cold extraction" process utilising grain alcohol may be the least destructive of all commercial chemical extraction processes. However, any essential oil that is adulterated by chemicals (and simultaneously extracted too quickly from the plant) is rendered less effective to useless for genuine aromatherapy and serious healing.

Naturopath Gary Young, founder of Young Living Essential Oils, refuses even to use alcohol. He prefers a tediously slow, virtually no-pressure steam extraction process using complicated stainless steel

(not aluminium) distillers of his own design. Although this elaborate extraction process substantially raises the price of his essential oils, Young declares that it also maintains the integrity of the oils' molecular structure and thus their bioelectrical field (and their ability to truly heal). Young also claims that because his oils are among the purest in the world, people with MCS can tolerate them because there are no chemicals to cause harsh reactions, and the high frequencies of the oils raise the vibration of the tissues and thus allow the body to correct its imbalances.

22. The labelling laws for harsh detergents produced by a national corporation apply equally to a country woman who sells simple handmade soap made from the milk of her goats and some home-grown organic herbs. Although there is a huge difference between a caustic bathroom cleaner and her product (it is highly improbable that she would add pesticides to her soap), her soap is legally considered comparable to a dangerous commercial detergent.

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### Endnotes

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### About the Author:

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